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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,152	02/09/2004	Nicolas Eches	CELA:111	5464
27890	7590	03/10/2006	EXAMINER	
STEPTOE & JOHNSON LLP 1330 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036			BERGIN, JAMES S	
		ART UNIT	PAPER NUMBER	
		3641		

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/773,152	ECHES ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	James S. Bergin	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 2/9/2004 & 1/25/2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 9-13 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 09 February 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/9/2004.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. This application contains claims directed to the following patentably distinct species:

Species 1, Figs. 1, 2A, 2B, 3A-C.

Species 2, Figs. 4A, 4B, 5A, 5B, 6A, 6B.

Species 3, Figs. 7A, 7B.

The species are independent or distinct because each defines an embodiment that is unique and requires a different embodiment specific search. For example, in species 1, the inserts are placed in a longitudinal recess made in the plane of symmetry of each sabot segment. Species 2, defines an embodiment in which the inserts are placed at the joint faces of the sabot segments. Species 3, defines an embodiment in which an insert is received in each of two recesses in each sabot segment. To search and examine claims drawn to all three independent and distinct species would place an undue burden on the examiner given the finite amount of time available to the examiner to search and examine this patent application.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-3 are generic to all species.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim

is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

2. During a telephone conversation with Roger Parkhurst on 1/24/2006 a provisional election was made with traverse to prosecute the invention of species 1, claims 1-8. Affirmation of this election has been made by applicant in the reply dated 1/25/2006. Claims 9-13 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

4. Applicant's confirmation of election with traverse of species 1, Figs. 1, 2A, 2B, 3A-C in the reply filed on 1/25/2006 is acknowledged. The traversal is on the ground(s) that the search and examination of all species could be made without serious burden. This is not found persuasive because to properly search examine and consider claims drawn to all three independent and distinct species would definitely place an undue

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burden on the examiner given the finite amount of time available to the examiner to search and examine this patent application. For the elected embodiment, the examiner will perform searches in US patent and pre-grant publication, EPO, JPO, and Derwents databases. The applicant is reminded that upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification (page 5, lines 24-36), while being enabling for an insert material having high mechanical properties with “*a longitudinal modulus of elasticity greater than or equal to 100 Giga Pascals and an elastic upper limit greater than or equal to 900 Mega Pascals*”, does not reasonably provide enablement for materials having high mechanical properties that have a longitudinal modulus of elasticity less than 100 Giga Pascals and an elastic upper limit less than 900 Mega Pascals, such potential high mechanical property materials being potentially encompassed by claim 1. The specification does not enable any person skilled in the art to which it pertains, or with which it is most

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nearly connected, to make the invention commensurate in scope with the high mechanical property material of claim 1.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The meaning of the claim 1, line 7 limitation, "*at least one longitudinal insert made of a material having high mechanical properties*" is unclear because claim 2, lines 1-4, defines the material of the insert as follows: "*said material of said insert has a longitudinal modulus of elasticity greater than or equal to 100 Giga Pascals and an elastic limit greater than or equal to 900 Mega Pascals*", which is in agreement with the definition of a material having high mechanical properties as described on page 5, lines 20-36 of the specification. Either claim 2 is a redundant claim and does not further modify claim 1 or the meaning of "a material having high mechanical properties" in claim 1 is broader than its meaning in claim 2 and its definition on page 5 of the specification.

In claim 1, line 9, "those of said sabot body" lacks proper antecedent basis because the sabot body has not been previously claimed as having indentations. Additionally, in line 9, "said indentations extending" is indefinite because the meaning of "extending" is unclear in this context. Do the indentations of the inserts define extensions of the indentations of the sabot segments or are the indentations of the sabot

segments and their associated inserts aligned in longitudinal relationship with both engaging the external profile of the penetrator?

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Wallow et al. (US 4,702,172).

Wallow et al. disclose a segmented sabot (col. 3, lines 55-68) having three equal segments 2, 4, 6 (figs. 1, 2 and 3) for surrounding and driving a projectile (inherently a sub-caliber projectile), the sabot comprising: a thrust plate (Fig. 1; not specifically numbered but in the region of numerals 35-37); a sabot body 1 made of a metal alloy such as alloy having an aluminum or titanium base (see claim 2 and col. 7, lines 59-65); the segments of the sabot body including longitudinal inserts 3 made from sheet metal, a material considered to have high mechanical properties. Wallow et al. disclose that the internal bore 26 of the sabot 1 has an internal thread 54 for locking the sabot to the projectile (col. 4, lines 14-17). Wallow et al. additionally disclose that the insert 3 possesses an internal threaded part 54" (Fig. 3) which complements the threaded part 54 of the sabot in engaging the projectile (col. 4, lines 21-29).

***Allowable Subject Matter***

11. Claims 2-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

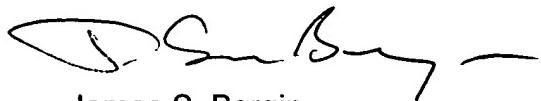
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shober (US 3,262,391); Kaste et al. (US 5,103,735); Rossmann (US 5,902,955); Rossman et al. (US 6,324,986 B1); Haberli (US 4,517,899); Berville et al. (US 5,227,580); Becker et al. (US 4,867,067) and Stewart et al. (US 5,789,699).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Bergin whose telephone number is 571-272-6872. The examiner can normally be reached on Monday - Wednesday and Friday, 8.30 - 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James S. Bergin